

LISTING OF THE CLAIMS (1-71)

Claims 1-32 (cancelled)

Claims 33-35 (withdrawn)

Claim 36 (Original): In a communication system, a method for controlling receipt of upstream data and transmission of downstream data, comprising the steps of:

receiving packets transmitted by a subscriber terminals on one or more upstream channels, wherein the packets are received by a packet interface on a first upstream path;

examining the packets to determine destination addresses; selectively forwarding the packets from the packet interface on a first downstream path for transmission over one or more downstream channels to designated subscriber terminal units according to the destination addresses.

Claim 37 (Original): The method of Claim 36, ~~wherein the head end controller~~ further comprising the steps of:

storing a plurality of valid IP addresses in a memory;
comparing IP addresses corresponding to an address resolution protocol packet with the valid IP addresses stored in memory to determine whether packets are valid or invalid;
processing valid packets;
discarding invalid packets.

Claim 38 (Original): The method of Claim 37, further comprising the steps of:

storing information pertaining to which packets are intended to be received by a particular subscriber terminal unit in a memory;

examining each packet received by the particular subscriber terminal unit to determine whether the packet was intended to be received by that particular subscriber terminal unit;

processing only downstream multicast packets that were intended to be received by that particular subscriber terminal unit;

discarding downstream multicast packets that were not intended to be received by that particular subscriber terminal unit.

Serial No.: 09/398.267

Examiner: PIZARRO, R.M.

Art Unit: 2661

Claims 39-67 (cancelled)

Claim 68 (previously added): A communication system comprising:

- a cable network having one or more downstream channels and one or more upstream channels;

- a plurality of subscriber terminal units coupled to the cable network;

- a head end controller coupled to the cable network for controlling upstream and downstream communications, wherein the head end controller includes:

- a packet interface for receiving packets from subscriber terminal units on a first upstream path;

- a packet forwarder coupled to the packet interface for selectively forwarding packets from the packet interface on a first downstream path transmission over one or more downstream channels to designated subscriber terminal units.

Claim 69 (currently amended): The communication system of Claim ~~6968~~, wherein the head end controller further comprises:

- a memory for storing a plurality of valid IP addresses;

- a filter coupled to the memory for comparing IP addresses corresponding to an address resolution protocol packet with the valid IP addresses stored in memory, wherein only valid packets are processed and invalid packets are discarded.

Claim 70 (previously added) The communication system of Claim 69, wherein one of the subscriber terminal units comprises:

- a memory for storing a plurality of valid IP addresses;

- a filter coupled to the memory for comparing IP addresses corresponding to an address resolution protocol packet with the valid IP addresses stored in memory, wherein only valid packets are allowed to proceed upstream and invalid packets are discarded.

Claim 71 (previously added) The communication system of Claim 69, wherein one of the subscriber terminal units is comprised of:

- a memory for storing information pertaining to which packets are to be received by the subscriber terminal unit;

- a filter coupled to memory for selectively processing only downstream multicast packets according to the information stored in the memory.

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